



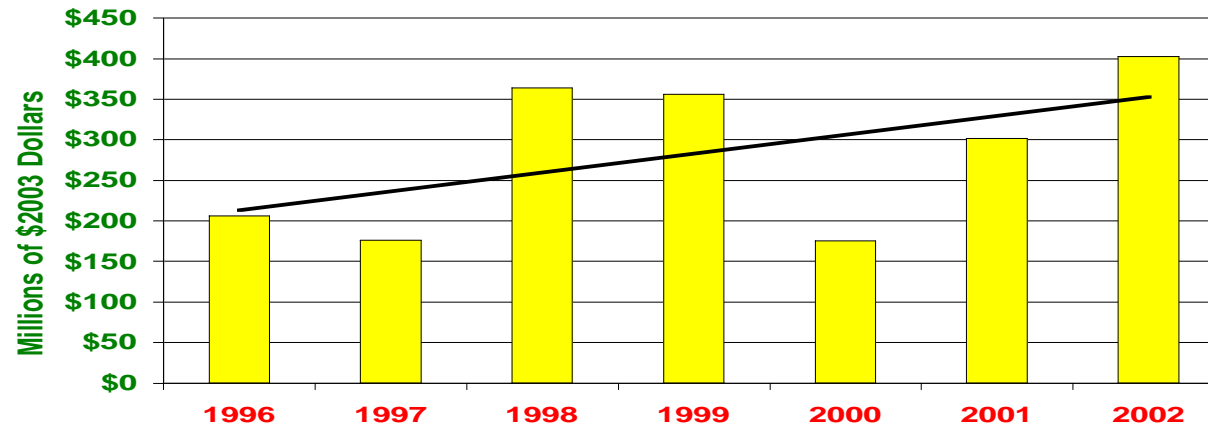
Discussion on Goal IV Upgrade & Expand the Electricity Transmission & Distribution Infrastructure

Joint Agency Energy Action Plan Meeting

March 2, 2004

Investor-Owned Utility Transmission Investments are Substantial and Rising

**California Investor-Owned Utility TRANSMISSION
INVESTMENT Under PUC Regulation - 1996-2002**



The PUC has overseen the annual addition by Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas and Electric Company together of more than \$280 million on average, for a total over that time of \$1.981 billion invested in electric transmission lines and facilities, in 2003 dollars.



Substantial Progress In Removing Transmission Constraints

Since January 2001, utilities under PUC jurisdiction have:

- **Completed 124 transmission projects** adding in total 13,000 megawatts (MW) of equipment, including:
 - **New** transmission lines and substations (transformers and switches)
 - **Replacement of existing** equipment with higher capacity equipment where that is effective, economical or less harmful to the environment



Substantial Progress In Removing Transmission Constraints (cont.)

- For example:
 - **Tri-Valley 230kV Underground Transmission Line** (SF Bay Area) now accommodates rapid Tri-Valley load growth while minimizing environmental impact
 - **NE San Jose Project** required undergrounding of a 230 kV transmission line with a CPUC cost cap of \$148 million



Substantial Progress In Removing Transmission Constraints (cont.)

- **Utilities received or have applied for permission to build 140 other projects that will:**
 - **Improve grid reliability** by replacing old or obsolete components to **reduce power outages**
 - Enable customers to **access lower cost power** generation sources
 - For example
 - The **Mission-Miguel Project** (need declared; CEQA review pending)
 - **Jefferson-Martin Transmission Line** will help avoid a repeat of the 12/98 blackout by increasing the power supply to San Francisco (PUC vote scheduled in May 2004)
 - Imperial Valley Substation Upgrades (San Diego County) will bring in low cost power from Mexico (approved)



Substantial Progress In Removing Transmission Constraints (cont.)

- **Projects in planning stages:**
 - **Palo Verde to Devers II 500 KV line**
 - **Imperial Valley to San Diego 500 KV line**
 - **Coldwell Brown – Pittsburg Municipal HVDC transmission line connecting Pittsburgh Power Plant to PG&E Portrero Substation**



PUC Protects California Ratepayers and May At Times Withhold Immediate Approval

- When proposals do not meet the CPUC's criteria for reliability, cost or environmental standards, approval is withheld.
- For example, for reliability, the PUC:
 - Determined that the \$250 million **Valley-Rainbow** project is not needed now (based on the five-year planning horizon)
 - Agreed with CAISO that a **Palo Verde-Devers** line is not needed until 2008



Transmission Improvements – Big Bang for the Buck

- The cost of transmission is less than 6/10 of a cent per Kwh (out of approximately 14 cents/Kwh – or about 4% of the per Kwh charge to consumers).



Interconnection Projects Bring New Power to the Grid

- CPUC has approved 32 generation interconnection projects such as the **High Desert Interconnection**
- CPUC is considering SCE's plan to upgrade its network to transmit new wind generation from the **Tehachapi** Mountains to Los Angeles



The CPUC and CEC both have Active Proceedings on Transmission Issues

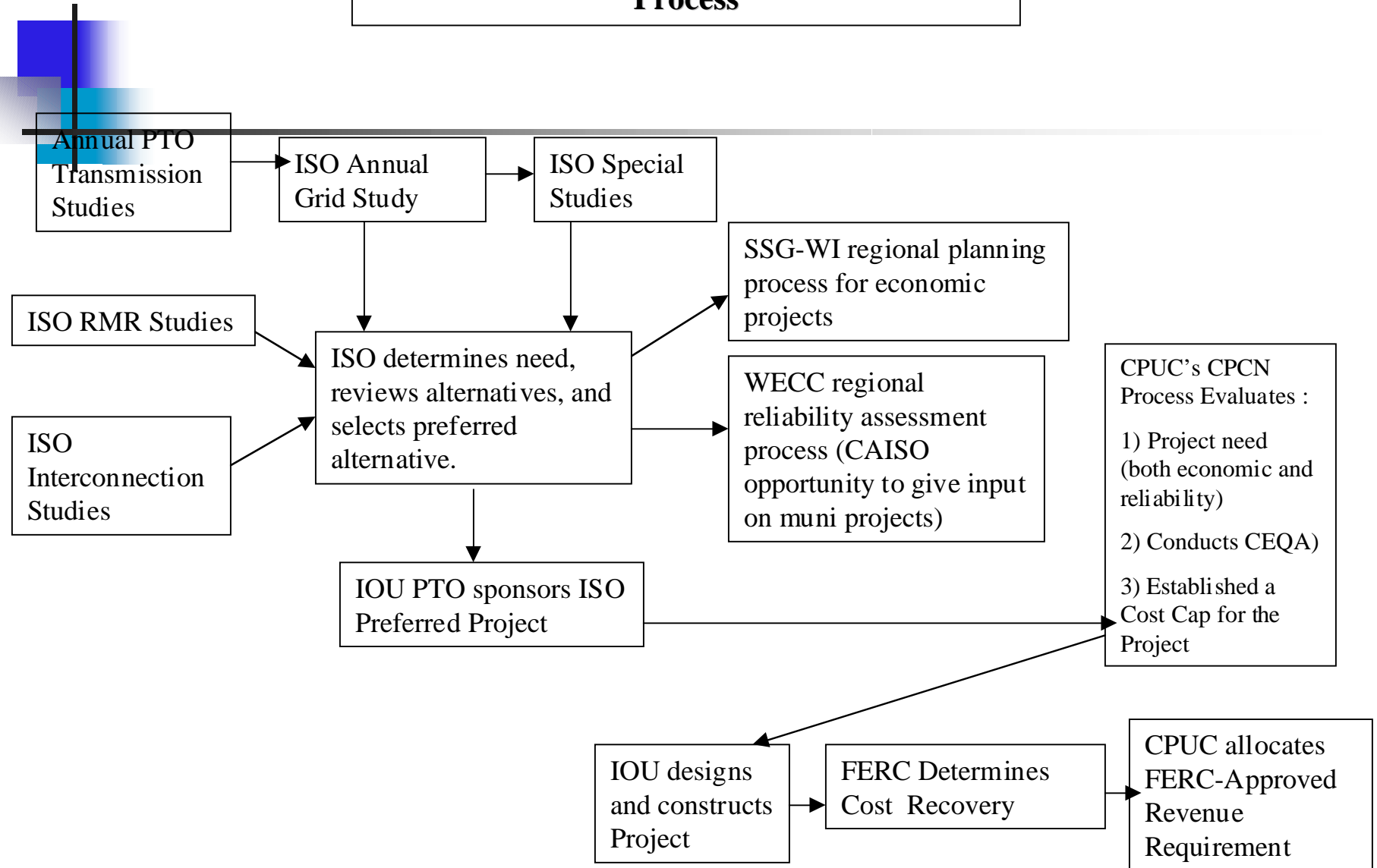
- The CPUC has several active Transmission proceedings:
 - 1 The Transmission OII- reviewing the economic methodology to be used to assess transmission projects, Tehachapi proceeding to assess transmission for renewables.
 - 2 The Transmission Streamlining OIR- looking at changes to GO 131-D to streamline and improve the existing transmission assessment process
 - 3 Prominent CPCNs currently pending: Jefferson Martin, Mission-Miguel
- The CEC Proceedings



Problems with Existing Transmission Planning

- Lack of comprehensive planning
- Balkanization of the Existing process
- Redundencies in the Existing process between the ISO and CPUC
- Lack of a dynamic method to assess project economics
- Sufficient coordination for Federal & State policy (eg. Deliverability, capacity rules, interconnection rules, transmission pricing)

Current IOU Transmission Assessment Process

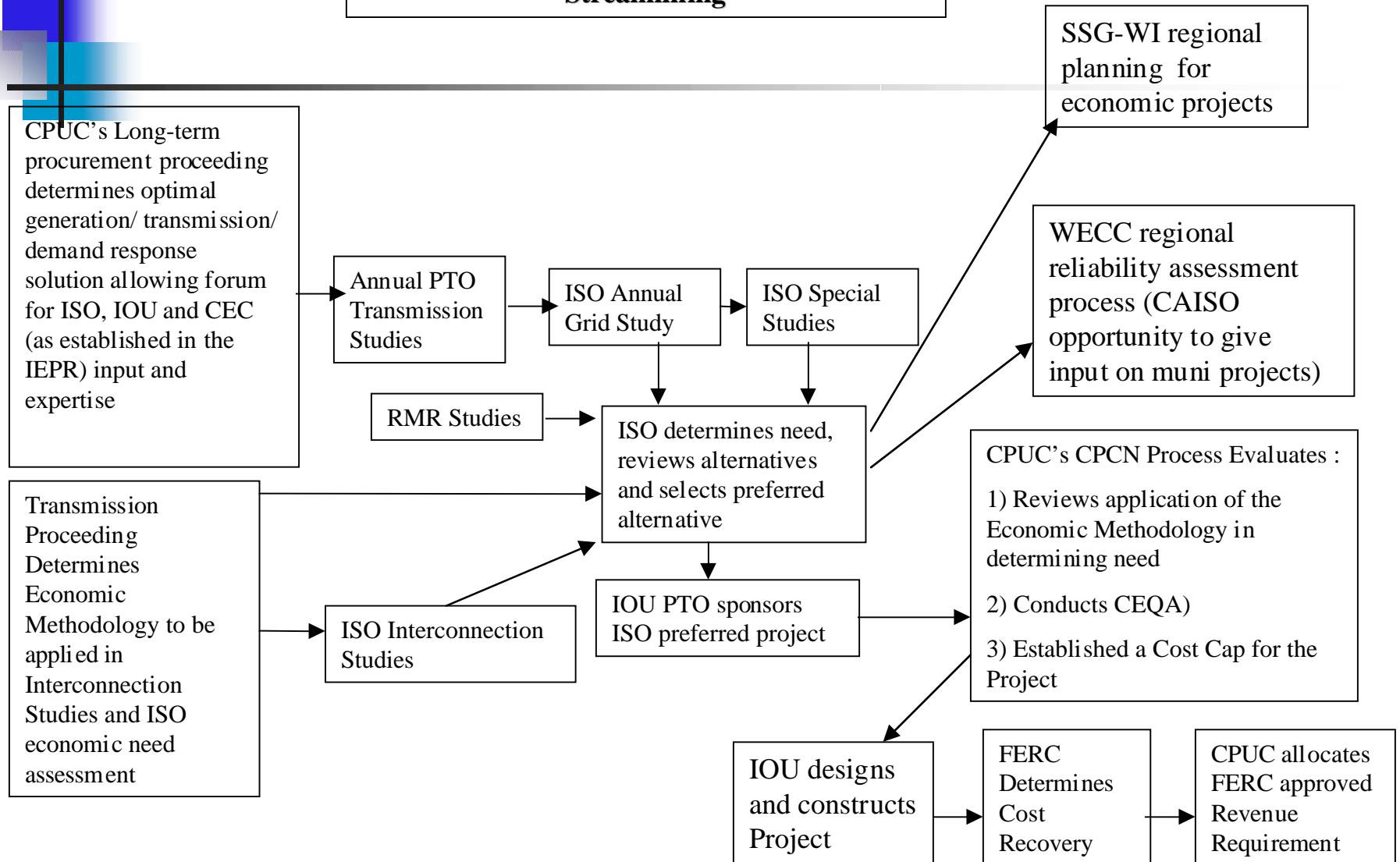




Proposed Changes to Streamline Transmission Assessment

- Transmission will be integrated into the the utilities long-term plans to ensure a comprehensive planning approach
- The ISO will assess whether a project in IOU authorized long term plan is required for economic and/or reliability reasons
- To the extent that the ISO uses an agreed upon standard for assessment the CPUC will not revisit the question of “need” in the CPCN process
- The CPUC will conduct CEQA, validate the ISO’s need determination, and conduct comprehensive planning

Proposed Process for Transmission Streamlining





The Transmission OII and Development of a Economic Methodology

- We need a more robust methodology for evaluating the economics of transmission given market dynamics
- The ISO is developing an economic methodology
- The biggest challenge is modeling the potential for market power
- The Commission will evaluate the ISO's methodology in the transmission OII (I.00-11-001)
- The ISO is conducting workshops to develop the methodology
- The ISO will submit its proposed methodology to the Commission in June 2004.
- The Commission anticipates a decision on the Economic Methodology by the end of 2004.



The Transmission OIR

- Recognizes the inefficiencies and redundancies in the existing process.
- Proposes changes to General Order 131-d to utilize the ISO's determination of transmission need.
- The Commission will not revisit the question of need to the extent that the ISO has assessed the project using a commission approved economic evaluation and reliability standard.
- The Commission anticipates a final decision in fall 2004